

CLAIMS

1. An analyzing method comprising:

5 a first detection step for irradiating light onto a reaction system to detect a response from the reaction system as a first detection result, the reaction system including a sample liquid and a reagent;

10 a second detection step for irradiating light onto a reference board to detect a response from the reference board as a second detection result, the response from the reference board being dependent on wavelength; and

a calculation step for calculating a concentration of a specific component in the sample liquid based on the first and second detection results.

15

2. The analyzing method according to claim 1, wherein the calculation step includes selecting a most suitable calibration curve from a plurality of pre-created calibration curves based on the second detection result, and calculating
20 the concentration of the specific component based on the selected calibration curve and the first detection result.

3. The analyzing method according to claim 1, wherein the calculation step further includes correcting the first
25 detection result based on the second detection result, and calculating the concentration of the specific component based on the correction and the calibration curve.

4. The analyzing method according to claim 1, wherein the calculation step further includes performing primary calculation of the concentration of the specific component, and obtaining a final calculated value by correcting the
5 primary calculated value.

5. The analyzing method according to claim 1, wherein at least one of the responses in the first and second detection steps is detected as an amount of regular reflection light,
10 transmitting light, or scattering reflection light.

6. An analyzing device comprising:
a light irradiator;
a detector for detecting a first response from a reaction
15 system under light irradiation from the light irradiator, the reaction system including a sample liquid and a reagent, the detector detecting a second response from a reference board under light irradiation from the light irradiator, the second response from the reference board being dependent on
20 wavelength; and

a calculator for calculating a concentration of a specific component in the sample liquid based on the first and second responses.

25 7. The analyzing device according to claim 6, further comprising:

a storage for storing a plurality of calibration curves

each representing relationship between a first detection result corresponding to the first response and the concentration of the specific component; and

a selector for selecting a most suitable calibration curve
5 for calculation from the plurality of calibration curves based on a second detection result corresponding to the second response,

wherein the calculator calculates the concentration of the specific component based on the calibration curve selected
10 by the selector and the first detection result.

8. The analyzing device according to claim 6, wherein the calculator corrects the first detection result corresponding to the first response based on the second detection result
15 corresponding to the second response, and then calculates the concentration of the specific component based on the correction.

9. The analyzing device according to claim 6, wherein the
20 calculator performs primary calculation of the concentration of the specific component based on the first detection result, and then calculates a final value by correcting the primary calculated value.

25 10. The analyzing device according to claim 6, further comprising a controller for controlling timing for detection of the second response at the detector.

11. The analyzing device according to claim 10, wherein the controller controls the detector for detecting the second response before or after the detection of the first response, or simultaneously with the detection of the first response.

5

12. The analyzing device according to claim 10, wherein the controller controls the detector for detecting the second response upon start-up of the analyzing device.

10 13. The analyzing device according to claim 6, wherein at least one of the first and second responses is detected as an amount of regular reflection light, transmitting light, or scattering reflection light.

15 14. A method of producing an analyzing device which comprises a light irradiator for irradiating light onto a reaction system which includes a sample liquid and a reagent, a detector for detecting a response from the reaction system under light irradiation, a calculator for calculating a concentration of
20 a specific component in the sample liquid based on the detection at the detector, and a storage for storing information necessary for calculation as to the specific component, the method comprising:

25 a detection step for irradiating light from the light irradiator onto a reference board to detect a response from the reference board under light irradiation for determining a light emitting state of the light irradiator, the response

from the reference board being dependent on wavelength; and
a storage step for storing the light emitting state in
the storage as information for use in calculation at the
calculator.

5

15. The analyzing device production method according to claim
14, further comprising

a calibration curve selecting step for selecting a
calibration curve corresponding to the light emitting state,
10 from a plurality of calibration curves representing
relationship between the detection result at the detector and
the concentration of the specific component, based on the
detection in the detection step,

wherein the storage step includes storage of the
15 calibration curve selected in the calibration curve selecting
step for use in calculation at the calculator.

16. The analyzing device production method according to claim
14,

20 wherein the light emitting state is detected as a peak
wavelength of emitted light in the detection step,

the peak wavelength being stored by the storage in the
storage step.

25 17. The analyzing device production method according to claim
14, wherein the reference board used in the detection step
is incorporated in the analyzing device beforehand.

18. The analyzing device production method according to claim 14, wherein the reference board used in the detection step is prepared separately from the analyzing device.